0590
0717

RAW SEQUENCE LISTING DATE: 07/23/2002
PATENT APPLICATION: US/09/818,990B TIME: 14:52:29

Input Set : A:\LEX-0152-USA SEQLIST.txt
Output Set: N:\CRF3\07232002\I818990B.raw

<110> APPLICANT: Walke, D. Wade
Donoho, Gregory
Scoville, John
Hilbun, Erin,
Zambrowicz, Brian
Turner, C. Alexander Jr.
<120> TITLE OF INVENTION: Novel Human Proteins and Polynucleotides Encoding the Same
<130> FILE REFERENCE: LEX-0152-USA
C--> <140> CURRENT APPLICATION NUMBER: US/09/818,990B
C--> <141> CURRENT FILING DATE: 2001-03-27
<150> PRIOR APPLICATION NUMBER: US 60/192,218
<151> PRIOR FILING DATE: 2000-03-27
<160> NUMBER OF SEQ ID NOS: 28
<170> SOFTWARE: FastSEQ for Windows Version 4.0
<210> SEQ ID NO: 1
<211> LENGTH: 3963
<212> TYPE: DNA
<213> ORGANISM: homo sapiens
<400> SEQUENCE: 1

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ccttgccatt tcggcagtcc ttctggggcc gctgaaggag gcggaggcca agatgacctt 180
ccagatcttt cagcctttct gagccaagaa gaattagacg aaagtgtcaa tttggcaaga 240
ctggccatca attacgaccc tttggagaag gcagatgaaa ctcaagctag aaaacgactt 300
tctcctgatc agatgaaaca ctcacctaat ttaagttttg agcctaactt ctgccaggat 360
aaccctcgaa gtcccaccag ctctaaagaa agcccccagg aggcaaaaag gccacagtat 420
tgttctgaaa cccagtccaa aaaagtattt ttaaataagg ctgccgactt cattgaagag 480
ctatcctccc ttttcaaatc ccacagctcc aaaaggatta gacctcgtgc ctgcaaaaac 540
cacaagagta aactggaatc tcaaaacaaa gttatgcagg aaaacagctc cagtttctca 600
gatctgtcag aaagacgaga aagatcttct gttcccatcc ctatccctgc ggataccagg 660
gataatgaag tgaatcacgc cctggaacag caggaagcca agaggcgtga agcggagcag 720
gctgccagtg aggcggctgg tggagacact acaccagggt cttccccttc atctctgtac 780
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aggtggtact gtgaaggcaa ggagcttgaa aattccccag atattcacat cgtccaggca 960
ggaaatctgc actcactgac cattgcggaa gcctttgaag aggacacagg acgctattcc 1020
tgctttgctt ctaacatcta tgggacagat tcgacttctg ctgagattta tatagaaggg 1080
gtttcttctt ctgactcaga aggcgaccct aacaaggaag agatgaatcg aatccagaag 1140
ccaaatgagg tgtcatctcc tcccactacc tctgcagtca ttcctccagc agtaccccaa 1200
gcccagcatt tggtggccca acctcgtgtg gcaaccatcc agcagtgtca gagccccacc 1260
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ctacaaaatt tgtcagcttc tgagggtcag ctggttgtct ttgaatgcag agtaaaagga 1380
gctccatctc ctaaggttga gtggtataga gaagggactt taatagaaga ttctccagat 1440

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52 tttaggattt tacagaaaaa acctcgatcc atggcagagc cagaggagat ttgcaccttg 1500
53 gtcattgctg aggtgtttgc agaagattct gggtgcttca catgtactgc aagcaacaaa 1560
54 tacggcacag tgtcaagcat tgcacagctg cacgtgagag gaaatgagga cctcagcaac 1620
55 aacgggtctc ttcactcagc caactcyacc accaacctgg cagctattga gccacagccc 1680
56 tccccacccc actcagagcc tccatctgtg gaacaacccc ccaaacccaa actcgagggg 1740
57 gttctggtga accacaatga gccccggtcc agctccagga ttgggcttcg tgtgcacttc 1800
58 aacctgcctg aagatgacaa aggaagtgaa gcatcctccg aggctggtgt ggtgaccacc 1860
59 agacagacca ggcccgattc tttscaggag aggttcaacg gacaggcaac aaaaacccca 1920
60 gagccttctt tccccgtgaa agagcccccc ccagttctgg ccaaacccaa acttgattcc 1980
61 actcagttac aacagcttca taaccaagtc ttactggaac aacaccaatt gcaaaaccca 2040
62 cctccttcat ctcctaagga gtttcctttc arcatgactg ttttgaactc caatgctccc 2100
63 ccagcggtga caacatccar taagcaggtg aaggctcctt catcacagac gttcagcttg 2160
64 gcccggccga agtatttctt cccctccacg aacaccaccg cagcaactgt ggccccttcc 2220
65 agctctccgg tgttcacttt gagcagcact cctcaaacta ttcagaggac agtgagcaaa 2280
66 gaaagcctct tagtgtctca cccctctgtg caaaccaaat ctccaggagg gctttccatc 2340
67 caaaatgagc cactcccacc aggcccaaca gaaccracac caccaccatt cacattttcc 2400
68 atccccagcg gaaaccagtt tcagccccgc tgtgtgtccc caattcctgt ctctcctacc 2460
69 agccggattc agaacccagt ggctttcctc agctctgttc tgccttctct ccctgccatc 2520
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71 gcgaagaaaa atacaaagtc tcctcaacca gtgaatgatg ataacattcg tgaaactaag 2640
72 aacgcagtga ttcgagactt ggggaaaaaa ataactttca gtgatgtcag accaaaccag 2700
73 caggagtaca aaatttcaag ctttgagcag aggctgatga atgaaataga gtttcgcttg 2760
74 gaacgtactc ctgttgatga atcagatgat gaaattcaac atgatgagat ccccacgggc 2820
75 aagtgtattg ctcccatctt tgacaagaga ctcaagcact tccgggtcac agaaggctct 2880
76 ccagtcacat tcacctgcaa aattgttggg atacctgttc caaaggttta ctggttcaaa 2940
77 gatgggaagc agatttctaa gagaaatgag cactgcaaaa tgaggcgaga aggagatggg 3000
78 acatgctctc tgcacattga atccactacc agtgatgacg atggcaacta caccatcatg 3060
79 gcagccaacc cccaggggag aatcagctgt tctggccact tgatggtaca aagtttgccc 3120
80 attcgcagtc ggctaacctc tgctggtcag tctcacaggg gaagatcccg agtgcaagaa 3180
81 agagacaaag agcccctaca ggaacgcttt ttccgaccac atttcctgca ggctcctggg 3240
82 gatatggtag ctcatgaggg gcgcctctgt cggctggact gtaaggtgag tggtttaccg 3300
83 cccccggagc tgacatggct actcaatggc caacctgtgc taccagatgc ctcccacaag 3360
84 atgctggtca gggagaccgg agtccactct ctgctcattg acccactcac tcagcgcgac 3420
85 gcagggacct ataagtgcat cgctaccaac aaaaccgggc agaattcttt tagtctggag 3480
86 ctctctgtag tagccaaaga ggtgaagaaa gcacctgtga tcctggagaa actacagaac 3540
87 tgcggtgttc ccgaaggcca ccccgtgaga ctggagtgcc gcgtgatagg catgccccca 3600
88 cctgtgttct actggaagaa agacaatgag accatccctt gcaccagaga gaggatcagt 3660
89 atgcaccagg acacaacagg gtatgcctgc cttctcattc agccagccaa gaaatcagac 3720
90 gctggatggt acacgttgtc agccaagaat gaagccggca tcgtgtcgtg cactgccagg 3780
91 ctggatatat acgctcagtg gcaccatcag atcccaccgc ccatgtctgt ccggcccagt 3840
92 ggcagtcgct acggatctct caccagtaaa ggacttgaca tattttctgc cttttcctcc 3900
93 atggaaagca cgatggtgta ttcatgctct tctcggagtg tagtggagag tgatgaactt 3960
94 taa 3963
96 <210> SEQ ID NO: 2
97 <211> LENGTH: 1320
98 <212> TYPE: PRT
99 <213> ORGANISM: homo sapiens
101 <220> FEATURE:
102 <221> NAME/KEY: VARIANT

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PATENT APPLICATION: **US/09/818,990B** TIME: 14:52:29

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Output Set: **N:\CRF3\07232002\I818990B.raw**

```
103 <222> LOCATION: (1)...(1320)
104 <223> OTHER INFORMATION: Xaa = Any Amino Acid
106 <400> SEQUENCE: 2
107 Met Gln Asp Asp Ser Ile Glu Ala Ser Thr Ser Ile Ser Gln Leu Leu
108  1               5                  10                  15
109 Arg Glu Ser Tyr Leu Ala Glu Thr Arg His Arg Gly Asn Asn Glu Arg
110             20                  25                  30
111 Ser Arg Ala Glu Pro Ser Ser Asn Pro Cys His Phe Gly Ser Pro Ser
112         35                  40                  45
113 Gly Ala Ala Glu Gly Gly Gly Gly Gln Asp Asp Leu Pro Asp Leu Ser
114     50                  55                  60
115 Ala Phe Leu Ser Gln Glu Glu Leu Asp Glu Ser Val Asn Leu Ala Arg
116 65                  70                  75                  80
117 Leu Ala Ile Asn Tyr Asp Pro Leu Glu Lys Ala Asp Glu Thr Gln Ala
118                 85                  90                  95
119 Arg Lys Arg Leu Ser Pro Asp Gln Met Lys His Ser Pro Asn Leu Ser
120             100                 105                 110
121 Phe Glu Pro Asn Phe Cys Gln Asp Asn Pro Arg Ser Pro Thr Ser Ser
122         115                 120                 125
123 Lys Glu Ser Pro Gln Glu Ala Lys Arg Pro Gln Tyr Cys Ser Glu Thr
124     130                 135                 140
125 Gln Ser Lys Lys Val Phe Leu Asn Lys Ala Ala Asp Phe Ile Glu Glu
126 145                 150                 155                 160
127 Leu Ser Ser Leu Phe Lys Ser His Ser Ser Lys Arg Ile Arg Pro Arg
128                 165                 170                 175
129 Ala Cys Lys Asn His Lys Ser Lys Leu Glu Ser Gln Asn Lys Val Met
130             180                 185                 190
131 Gln Glu Asn Ser Ser Ser Phe Ser Asp Leu Ser Glu Arg Arg Glu Arg
132         195                 200                 205
133 Ser Ser Val Pro Ile Pro Ile Pro Ala Asp Thr Arg Asp Asn Glu Val
134     210                 215                 220
135 Asn His Ala Leu Glu Gln Gln Glu Ala Lys Arg Arg Glu Ala Glu Gln
136 225                 230                 235                 240
137 Ala Ala Ser Glu Ala Ala Gly Gly Asp Thr Thr Pro Gly Ser Ser Pro
138                 245                 250                 255
139 Ser Ser Leu Tyr Tyr Glu Glu Pro Leu Gly Gln Pro Pro Arg Phe Thr
140             260                 265                 270
141 Gln Lys Leu Arg Ser Arg Glu Val Pro Glu Gly Thr Arg Val Gln Leu
142         275                 280                 285
143 Asp Cys Ile Val Val Gly Ile Pro Pro Pro Gln Val Arg Trp Tyr Cys
144     290                 295                 300
145 Glu Gly Lys Glu Leu Glu Asn Ser Pro Asp Ile His Ile Val Gln Ala
146 305                 310                 315                 320
147 Gly Asn Leu His Ser Leu Thr Ile Ala Glu Ala Phe Glu Glu Asp Thr
148                 325                 330                 335
149 Gly Arg Tyr Ser Cys Phe Ala Ser Asn Ile Tyr Gly Thr Asp Ser Thr
150             340                 345                 350
151 Ser Ala Glu Ile Tyr Ile Glu Gly Val Ser Ser Ser Asp Ser Glu Gly
152         355                 360                 365
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PATENT APPLICATION: US/09/818,990B TIME: 14:52:29

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Output Set: N:\CRF3\07232002\I818990B.raw

```
153 Asp Pro Asn Lys Glu Glu Met Asn Arg Ile Gln Lys Pro Asn Glu Val
154     370                 375                 380
155 Ser Ser Pro Pro Thr Thr Ser Ala Val Ile Pro Pro Ala Val Pro Gln
156 385                 390                 395                 400
157 Ala Gln His Leu Val Ala Gln Pro Arg Val Ala Thr Ile Gln Gln Cys
158                 405                 410                 415
159 Gln Ser Pro Thr Asn Tyr Leu Gln Gly Leu Asp Gly Lys Pro Ile Ile
160             420                 425                 430
161 Ala Ala Pro Val Phe Thr Lys Met Leu Gln Asn Leu Ser Ala Ser Glu
162         435                 440                 445
163 Gly Gln Leu Val Val Phe Glu Cys Arg Val Lys Gly Ala Pro Ser Pro
164     450                 455                 460
165 Lys Val Glu Trp Tyr Arg Glu Gly Thr Leu Ile Glu Asp Ser Pro Asp
166 465                 470                 475                 480
167 Phe Arg Ile Leu Gln Lys Lys Pro Arg Ser Met Ala Glu Pro Glu Glu
168                 485                 490                 495
169 Ile Cys Thr Leu Val Ile Ala Glu Val Phe Ala Glu Asp Ser Gly Cys
170             500                 505                 510
171 Phe Thr Cys Thr Ala Ser Asn Lys Tyr Gly Thr Val Ser Ser Ile Ala
172         515                 520                 525
173 Gln Leu His Val Arg Gly Asn Glu Asp Leu Ser Asn Asn Gly Ser Leu
174     530                 535                 540
175 His Ser Ala Asn Ser Thr Thr Asn Leu Ala Ala Ile Glu Pro Gln Pro
176 545                 550                 555                 560
177 Ser Pro Pro His Ser Glu Pro Pro Ser Val Glu Gln Pro Pro Lys Pro
178                 565                 570                 575
179 Lys Leu Glu Gly Val Leu Val Asn His Asn Glu Pro Arg Ser Ser Ser
180             580                 585                 590
181 Arg Ile Gly Leu Arg Val His Phe Asn Leu Pro Glu Asp Asp Lys Gly
182         595                 600                 605
183 Ser Glu Ala Ser Ser Glu Ala Gly Val Val Thr Thr Arg Gln Thr Arg
184     610                 615                 620
W--> 185 Pro Asp Ser Xaa Gln Glu Arg Phe Asn Gly Gln Ala Thr Lys Thr Pro
186 625                 630                 635                 640
187 Glu Pro Ser Phe Pro Val Lys Glu Pro Pro Pro Val Leu Ala Lys Pro
188                 645                 650                 655
189 Lys Leu Asp Ser Thr Gln Leu Gln Gln Leu His Asn Gln Val Leu Leu
190             660                 665                 670
191 Glu Gln His Gln Leu Gln Asn Pro Pro Pro Ser Ser Pro Lys Glu Phe
192         675                 680                 685
W--> 193 Pro Phe Xaa Met Thr Val Leu Asn Ser Asn Ala Pro Pro Ala Val Thr
194     690                 695                 700
W--> 195 Thr Ser Xaa Lys Gln Val Lys Ala Pro Ser Ser Gln Thr Phe Ser Leu
196 705                 710                 715                 720
197 Ala Arg Pro Lys Tyr Phe Phe Pro Ser Thr Asn Thr Thr Ala Ala Thr
198                 725                 730                 735
199 Val Ala Pro Ser Ser Ser Pro Val Phe Thr Leu Ser Ser Thr Pro Gln
200             740                 745                 750
201 Thr Ile Gln Arg Thr Val Ser Lys Glu Ser Leu Leu Val Ser His Pro
```

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Input Set : A:\LEX-0152-USA SEQLIST.txt
Output Set: N:\CRF3\07232002\I818990B.raw

```
     202         755                 760                 765
     203 Ser Val Gln Thr Lys Ser Pro Gly Gly Leu Ser Ile Gln Asn Glu Pro
     204     770                 775                 780
     205 Leu Pro Pro Gly Pro Thr Glu Pro Thr Pro Pro Pro Phe Thr Phe Ser
     206 785                 790                 795                 800
     207 Ile Pro Ser Gly Asn Gln Phe Gln Pro Arg Cys Val Ser Pro Ile Pro
     208                 805                 810                 815
     209 Val Ser Pro Thr Ser Arg Ile Gln Asn Pro Val Ala Phe Leu Ser Ser
     210             820                 825                 830
W--> 211 Val Leu Pro Ser Leu Pro Ala Ile Pro Pro Thr Asn Ala Met Xaa Leu
     212         835                 840                 845
     213 Pro Arg Ser Ala Pro Ser Met Pro Ser Gln Gly Leu Ala Lys Lys Asn
     214     850                 855                 860
     215 Thr Lys Ser Pro Gln Pro Val Asn Asp Asp Asn Ile Arg Glu Thr Lys
     216 865                 870                 875                 880
     217 Asn Ala Val Ile Arg Asp Leu Gly Lys Lys Ile Thr Phe Ser Asp Val
     218                 885                 890                 895
     219 Arg Pro Asn Gln Gln Glu Tyr Lys Ile Ser Ser Phe Glu Gln Arg Leu
     220             900                 905                 910
     221 Met Asn Glu Ile Glu Phe Arg Leu Glu Arg Thr Pro Val Asp Glu Ser
     222         915                 920                 925
     223 Asp Asp Glu Ile Gln His Asp Glu Ile Pro Thr Gly Lys Cys Ile Ala
     224     930                 935                 940
     225 Pro Ile Phe Asp Lys Arg Leu Lys His Phe Arg Val Thr Glu Gly Ser
     226 945                 950                 955                 960
     227 Pro Val Thr Phe Thr Cys Lys Ile Val Gly Ile Pro Val Pro Lys Val
     228                 965                 970                 975
     229 Tyr Trp Phe Lys Asp Gly Lys Gln Ile Ser Lys Arg Asn Glu His Cys
     230             980                 985                 990
     231 Lys Met Arg Arg Glu Gly Asp Gly Thr Cys Ser Leu His Ile Glu Ser
     232         995                 1000                1005
     233 Thr Thr Ser Asp Asp Asp Gly Asn Tyr Thr Ile Met Ala Ala Asn Pro
     234     1010                1015                1020
     235 Gln Gly Arg Ile Ser Cys Ser Gly His Leu Met Val Gln Ser Leu Pro
     236 1025                1030                1035                1040
     237 Ile Arg Ser Arg Leu Thr Ser Ala Gly Gln Ser His Arg Gly Arg Ser
     238                 1045                1050                1055
     239 Arg Val Gln Glu Arg Asp Lys Glu Pro Leu Gln Glu Arg Phe Phe Arg
     240             1060                1065                1070
     241 Pro His Phe Leu Gln Ala Pro Gly Asp Met Val Ala His Glu Gly Arg
     242         1075                1080                1085
     243 Leu Cys Arg Leu Asp Cys Lys Val Ser Gly Leu Pro Pro Pro Glu Leu
     244     1090                1095                1100
     245 Thr Trp Leu Leu Asn Gly Gln Pro Val Leu Pro Asp Ala Ser His Lys
     246 1105                1110                1115                1120
     247 Met Leu Val Arg Glu Thr Gly Val His Ser Leu Leu Ile Asp Pro Leu
     248                 1125                1130                1135
     249 Thr Gln Arg Asp Ala Gly Thr Tyr Lys Cys Ile Ala Thr Asn Lys Thr
     250             1140                1145                1150
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/23/2002
PATENT APPLICATION: **US/09/818,990B** TIME: 14:52:31

Input Set : **A:\LEX-0152-USA SEQLIST.txt**
Output Set: **N:\CRF3\07232002\I818990B.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 628,691,707,847
Seq#:14; Xaa Pos. 628,691,707
Seq#:16; Xaa Pos. 353,416,432,572
Seq#:28; Xaa Pos. 353,416,432

VERIFICATION SUMMARY DATE: 07/23/2002
PATENT APPLICATION: **US/09/818,990B** TIME: 14:52:31

Input Set : **A:\LEX-0152-USA SEQLIST.txt**
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L:15 M:270 C: Current Application Number differs, Replaced Current Application No
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:624
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:688
L:195 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:704
L:211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:832
L:875 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:624
L:883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:688
L:885 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:704
L:1009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:352
L:1015 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:400
L:1017 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:416
L:1035 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:560
L:1410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:352
L:1416 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:400
L:1418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:416